

# **FLASHTOASTER FOR READING SEVERAL TYPES OF FLASH MEMORY CARDS WITH OR WITHOUT A PC**

**Publication number:** WO0205102 (A1)

**Publication date:** 2002-01-17

**Inventor(s):** JONES LARRY LAWSON; MAMBAKKAM SREENATH; AROCKIYASWAMY VENKIDU +

**Applicant(s):** ONSPEC ELECTRONIC INC [US] +

**Classification:**

- international: G06F13/38; G06K17/00; G06K19/077; G06K7/00; G06F13/38; G06K17/00; G06K19/077; G06K7/00; (IPC1-7): G06F13/00

- European: G06F13/38; G06F13/38A2; G06K7/00K

**Application number:** WO2001US41249 20010703

**Priority number(s):** US20000610904 20000706

**Also published as:**

US6438638 (B1)  
US2003041203 (A1)  
US7222205 (B2)  
US2008250174 (A1)  
US2003084221 (A1)

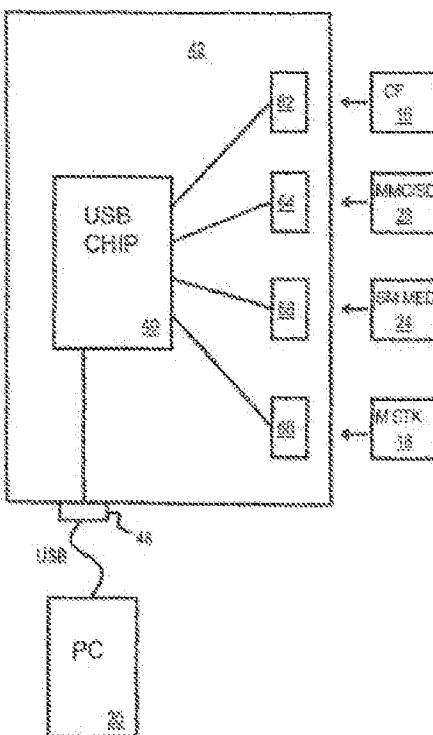
[more >>](#)

**Cited documents:**

US6264506 (B1)  
US6075706 (A)

## **Abstract of WO 0205102 (A1)**

A flash-memory-card reader (42) reads and writes multiple types of flash-memory cards (16, 18, 24, 28, 26), including CompactFlash (16), and the smaller SmartMedia (24), MultiMediaCard (28), Secure Digital (26), and Memory Stick (18). A converter chip (40) converts the different card signals for transfer to a host personal computer (PC) (20). Serial-to-parallel data conversion is performed for the smaller card formats with serial data interfaces, but not for CompactFlash with a parallel-data interface. A single slot (22) has a 50-pin connector for CompactFlash cards (16) or passive adapters (30, 32, 34). The passive adapters have the CompactFlash (16, 28, 24, 18) form factor and a smaller connector fitting smaller flash cards (30, 34, 32). Passive adapters have no components but simply wire the smaller connector to the CompactFlash connector (62, 64, 66, 68). A pin mapping allows card-type detection by sensing the LSB address pins of the CompactFlash interface. A larger CompactFlash reader (42) has multiple slots (44) for each card type. The reader (42) is connected to the PC by a cable (46), or located within the PC chassis in a drive bay. A stand-alone reader (42) copies images from the flash-memory card (16) to a removable disk media. Pressing a button initiates image transfer.



Data supplied from the **espacenet** database — Worldwide